



## Engaging Youth in Citizen Science for Geohydrological Risk Awareness: A Case Study from Chiavari

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Citizen science is increasingly employed to raise awareness and foster action on climate change and sustainability by involving the public in scientific processes. These initiatives promote scientific understanding and active participation in defining adaptation strategies, engaging diverse population groups and stakeholders. Participatory mechanisms play a crucial role in geo-hydrological disaster management, aiming to increase risk awareness among the population, especially the most vulnerable.

Within the H2020 I-CHANGE project, a participatory initiative is underway in Chiavari, part of the Genoa metropolitan area, involving local public offices, high school students, and teachers. Chiavari was chosen due to the wealth of information on past geohydrological events, including a significant flood in November 2014. This event provided abundant multimedia materials that enabled detailed reconstruction. Students simulated their presence during the flood and conducted field campaigns to gather local data and experiences through interviews with witnesses. They recorded specific data on a web application, describing various characteristics of the event such as water height and flow speed.

This hands-on approach was impactful for the students, allowing them to reconstruct local historical memory. Despite their young age during the 2014 flood, many remembered and feared the event, demonstrating its lasting impression. Complementarily, a survey on extreme event knowledge and perception was conducted among high school students and adults. Focus groups with students further explored themes identified in the survey.

The continuous engagement with young people has established a vivacious communication channel to raise awareness of the climate risks they will face. The project investigates several key points regarding participatory mechanisms with young people:

- (i) The challenges and opportunities of using participatory and citizen science approaches to monitor geohydrological risks.
- (ii) The effectiveness of these methods in enhancing risk awareness.
- (iii) The broader implications of involving students in citizen science, including social interactions, participation levels, and technical-scientific challenges.
- (iv) The impact on students' orientation towards sustainable behaviors and lifestyles.